

18 MARCH 1998



Flying Operations

## FLYING TRAINING SUPERVISION

## ----- Compliance with this publication is mandatory -----

This instruction implements AFPD 11-4, *Aviation Service*. It prescribes commander responsibilities for creating and maintaining an airfield environment conducive to safe and efficient production of quality flying training graduates. All Air Education and Training Command (AETC) flying units, including the flight screening programs at Hondo and the Academy, tenant units, and personnel who fly with AETC will comply with this instruction. Each wing will supplement this instruction. The 80th Flying Training Wing will comply as much as possible; however, the Euro-NATO Joint Jet Pilot Training Plan of Operation, Memorandum of Understanding, and Steering Committee guidance take precedence. Air National Guard units use supervisor of flying (SOF) guidance from ANGI 11-218. Send a copy of any supplements to this instruction to Air University, Director, Plans and Operations (AU/XO) or Numbered Air Force, Chief of Operations (NAF/DO) for approval prior to implementation. Send waiver requests to this publication through AU/XO or NAF/DO to HQ AETC, Operations Support Branch (HQ AETC/XOSO).

**NOTES:**

1. Attachment 1 lists abbreviations used in this instruction.
2. For 42 Air Base Wing, operations group (OG) refers to operations squadron and squadron refers to flight.
3. Civil Air Patrol-United States Air Force (CAP-USAF) will follow CAP-USAF guidance.

**★SUMMARY OF REVISIONS**

This revision incorporates interim change (IC) 98-1. It adds “flight commander” to the listing of who is qualified to perform squadron supervisor (SUP) duties. A ★ indicates a change from the previous edition. See attachment 14 for IC 98-1.

**1. Flying Supervision.** Paragraphs 1.1 through 1.8 outline the minimum essential elements required of all supervisors to ensure positive supervision and control of AETC flying activities. This does not relieve other agencies of their responsibility to provide safe and effective aircraft control.

**1.1. Operations Group Commander (OG/CC).** The OG/CC is responsible for every aspect of the flying environment. The OG/CC leads functional teams to ensure each supervisor is adequately trained and certified. Key supervisors are the SOF, runway supervisory unit (RSU) controller (undergraduate

flying training (UFT) only), squadron supervisor (SUP), flight commander, flight lead/mission commander (FL/MC), aircraft commander, and instructor.

**1.2. SOF.** The SOF is the OG/CC's focal point to ensure the safe and efficient conduct of flying operations. The SOF provides effective supervision of flying activities and assesses any need for change in flying operations.

**1.2.1. Qualifications.** SOFs are nominated by the squadron commander and certified by the OG/CC. A SOF will be a flight commander or equivalent or higher (as determined by OG/CC in wing supplement) and will be current in one of the aircraft assigned to the base.

**1.2.2. Training.** The OG/CC will establish an upgrade and continuation training program for individuals selected for SOF duties. Attachment 2 defines the minimum requirements for SOF upgrade.

**1.2.3. Program Administration.** The OG/CC may designate an SOF program manager responsible for maintaining training program records, SOF kits, read files, publications, forms, and any other paperwork associated with the SOF program.

**1.2.4. Duty Location.** The primary SOF duty location for UFT, PIT, and fighter wings is the tower. In all other units, the OG/CC will determine the SOF's primary duty location; i.e., the tower, command post (CP), command and control vehicle, operations center, etc. If the SOFs are not in the primary duty location, they must be available to the OG/CC via handheld radio (brick) or cellular phone.

**1.2.5. Duties.** The SOF will be on duty during all local flying. When the SOF's duty location is in the tower, the relationship between the SOF and the control tower shift supervisor must be carefully outlined. The shift supervisor must ensure compliance with air traffic control publications, while the SOF will ensure compliance with Air Force, AETC, and unit flying directives. Units do not require a SOF during air defense scrambles or for deployments of five or less aircraft. During weekend or other off-station flying, the SOF will maintain contact with the CP and be readily available for recall. In addition, the SOF will:

**1.2.5.1.** Be on duty at the primary duty location at least 30 minutes prior to the first scheduled takeoff and until the last local aircraft is in the chocks.

**1.2.5.2.** Complete the opening/changeover checklist according to the wing supplement. The opening checklist should include, but is not limited to: confirming the status of home field runways and navigational facilities with appropriate agencies, conducting a communication check to confirm the operability of hotlines and radios, etc. For Flight Screening Programs, UFT, and PIT, the SOF will also establish a flying status 1 hour prior to the first launch as well as confirm the status of auxiliary and alternate airfields.

**1.2.5.3.** Be familiar with each squadron's flying schedule and any special requirements (initial solos, solo out-and-backs, air refueling, airdrops, etc.) for that day.

**1.2.5.4.** Stay current on weather conditions, status of the runways and navigational facilities serving the home field, auxiliary fields, ranges, drop zones and if required designated alternate airfields.

1.2.5.5. Assist emergency aircraft. When required, designate an aircraft to fly chase.

1.2.5.6. Maintain a SOF log for recording significant actions and events.

1.2.5.7. Advise aircrews of extreme environmental temperatures and ensure flying activities comply with procedures governing operations under extreme heat and cold (attachments 3 and 4). For airlift, tanker, and special operations aircraft which require extended ground preparation by crewmembers, the OG/CC will ensure adequate means are employed to counter the adverse affects of temperature extremes on crewmembers.

1.2.5.8. Take action to locate any overdue aircraft.

1.2.5.9. Brief the replacement SOF on the current situation. Do not change SOFs when an emergency is in progress.

1.2.5.10. For appropriate situations, refer to the quick reaction checklist (QRC) (attachment 5).

1.2.5.11. (UFT wings only) Be on duty in the tower during all local flying, when off-station student solo/team missions are airborne, and during the recovery windows for non-weekend off-station missions. During weekend off-station cross-countries, the SOF will maintain contact with the CP and be readily available for recall. During the recovery windows for weekend off-station missions, the SOF will be on call and is fully responsible for the tracking and safe recovery of all off-station aircraft. If, during the weekend recovery windows, an alternate is required, thunderstorms are forecast, winds are forecast out of limits, or squadron deployments are recovering, the SOF will be on duty in the tower not later than 1 hour prior to the first recovery.

**1.2.6. Control and Recovery of In-Flight Emergencies (IFE).** The primary objective of all directives, instructions, and actions relating to aircraft emergencies is the safe recovery of aircraft and aircrews. SOFs will:

1.2.6.1. Be as informed as possible of the situation before issuing instructions or suggesting action. Coordinate actions with agencies who are involved in recovering the emergency aircraft safely.

1.2.6.2. At the first opportunity, notify the OG/CC of the situation and the radio frequency to be used in recovering the aircraft.

1.2.6.3. Recover an emergency aircraft (such as, UPT, SUPT, or fighter type aircraft) from outside the local pattern on a discrete, single frequency approach (SFA) when possible. The IFE aircrew or SOF may request an SFA, but approach control is solely responsible for assigning the frequency. Emergencies recovering to a tower-controlled runway should maintain the SFA. IFE aircrews recovering to an RSU-controlled runway will switch to the RSU frequency according to local procedures.

1.2.6.4. Coordinate with the Chief of Air Traffic Control Operations (CATCO) and establish procedures to provide the frequency used by emergency aircraft over the crash net. The Crash Recovery Vehicle (Chief-Two), the OG/CC vehicle, and the SOF vehicle, if applicable, will be equipped with a radio to monitor emergency aircraft.

1.2.7. **Command Post (CP).** During local flying, the CP assists the SOF as necessary to coordinate emergency response and facilitate hotel/skyhook/x-ray conference calls. Time permitting, hotel/skyhook/x-ray conference calls involve the most knowledgeable aircraft-specific maintenance and engineering personnel with key flying operations supervisors in troubleshooting airborne emergencies. Hotel/skyhook/x-ray conference procedures are at attachment 6. In addition, the CP can assist the SOF by communicating maintenance and weather status changes to the flying squadrons. For off-station flying, the CP monitors aircraft location and status and provides the vital communication link between off-station aircrews and the SOF or SUP.

1.2.8. **Currency.** Each SOF will accomplish one tour at least every 60 calendar days. Any SOF losing currency will be supervised on duty by a current and qualified SOF for a minimum of 1 hour before performing unsupervised SOF duties.

1.2.9. **SOF Meeting.** The OG/CC will conduct a quarterly SOF meeting.

1.2.9.1. Attendees will include all SOFs, the CATCO, the tower chief controller, Chief of Wing Safety, the radar approach control (RAPCON) chief controller (if applicable), weather noncommissioned officer-in-charge, fire chiefs, and other members as determined by the OG/CC. OG/CCs will establish procedures to ensure SOFs who miss this meeting (leave, temporary duty (TDY), etc.) obtain the information discussed at the quarterly SOF meeting before their next SOF tour.

1.2.9.2. The agenda will include a review of procedures, recent situations, and past emergencies. Attendees will fully discuss at least one actual situation to illustrate selected problems and reasonable solutions. If available, use tapes of recent emergencies to stimulate discussion.

1.2.10. **Duty Limitations.** The OG/CC will determine SOF duty limitations (in no case will it exceed 16 hours). Do not assign SOFs duties that detract from their responsibilities in paragraph 1.2.5. The SOF will meet AFI 11-401, *Flight Management*, minimum crew rest requirements. During periods of reduced flying activity, such as weekends and holidays, units may schedule one SOF for the entire weekend or holiday period. Qualified personnel who are temporarily on duty not involving flying (DNIF) status may perform SOF duty, with flight surgeon approval.

1.2.11. **SOF Position Equipment Requirements.** The wing commander is responsible for ensuring the operational status of SOF facilities and equipment. For SOF position equipment requirements, see attachment 7. AETC's unit SOF telephone numbers are at attachment 8.

1.3. **RSU Controller (UFT Only).** As required by AETCI 13-201, *Airspace Management and Runway Supervisory Unit (RSU) Operations*, the RSU controller and crew closely supervise solo student operations and ensure safe and efficient traffic pattern operations. RSU controllers provide senior supervisors with an additional quality check of traffic patterns and landings. They work directly with the SOF to resolve emergency situations safely. RSU controllers are a vital link in the flying supervisory chain. For RSU controller qualification and training requirements, see AETCI 13-201.

★1.4. **Squadron Supervisor (SUP).** The SUP is the focal point for decisions affecting all squadron flying operations, and he or she will ensure flying operations comply with directives. The squadron commander, operations officer, any assistant operations officer, or any flight commander will be the SUP. Before a flight commander assumes SUP duties, the squadron commander must nominate the

individual to the operations group commander in writing. The operations group commander will establish a training program for flight commanders selected for SUP duties. Once training is complete, the operations group commander will certify flight commanders, in writing, prior to them performing SUP duties. On a case-by-case basis and with the operations group commander's approval, flight commanders who have not been trained or certified as SUP may perform SUP duties. The intent of this deviation is to provide coverage for the squadron commander, operations officer, assistant operations officer, or certified flight commander when they are temporarily unavailable. The SUP is the squadron's primary point of contact for the supervisor of flying (SOF). In emergency situations, the SUP provides guidance and assistance to the SOF as required. Under normal circumstances, SUP duties should not be combined with those of the SOF. However, the Fairchild AFB UH-1 and T-43, C-12, and C-21 SUPs may combine SUP duties with those of the SOF due to the small size of their units. (If the duties are combined, the wing supplement will specify the primary duty location.) At all other units when the number of aircraft involved is very small and of short duration, the operations group commander may, by exception, authorize combining SUP duties with those of the SOF.

**1.4.1. Duty.** The SUP will be in the squadron or readily available for recall when squadron flying is in progress. When weekend or other off-station flying is in progress, a SUP will be on call through the CP. The SUP will maintain close contact with the CP to ensure positive control of all aircraft.

**1.4.2. Duty Desk.** During flying operations, the squadron duty desk is the focal point for information and schedule execution. Operations resource management specialists or other knowledgeable personnel certified in duty desk procedures by the squadron operations officer will occupy the desk as specified or directed by the wing supplement. Attachment 9 lists typical duty desk equipment.

**1.5. Flight Commander.** The flight commander is the first echelon of command responsible for safely and efficiently scheduling people, missions, and aircraft. The flight commander must know the capabilities and experience levels of all flight members and ensure they fly the right mission at the right time according to the current syllabus and applicable directives. Safety must remain foremost in the flight commander's mind. Flight commanders will also keep the operations officer informed of the training plan and any changes. Each wing will develop a flight commander training program. See attachment 10 for a flight commander training program's minimum requirements.

**1.6. Flight Lead/Mission Commander (FL/MC).** On all formation flights, the flight commander will designate an FL/MC who determines mission objectives and is responsible for the safe and efficient accomplishment of the mission. When selecting an FL/MC, the flight commander should consider the background, experience level, and capabilities of the instructors involved. Experience, not grade, should be the primary consideration. The FL/MC may delegate specific mission elements to other flight members when training requirements dictate, such as allowing a student to brief or allowing other formation members to fly as lead, but the FL/MC is still responsible for all aspects of the mission.

**1.7. Aircraft Commander.** The aircraft commander determines mission objectives and is responsible for the safe and efficient accomplishment of the mission. When selecting aircraft commanders, the flight commander should consider the background, experience level, and capabilities of the individuals. Experience, not grade, should be the primary consideration. The aircraft commander may delegate specific mission elements to other crewmembers as required for mission accomplishment.

**1.8. Instructor.** The instructor is the first level of supervision in the squadron. The instructor is responsible for safe and efficient student training. The instructor's goal is to produce a quality graduate. To do this, the instructor must be dedicated to giving students the best possible training according to the syllabus and applicable directives. However, the instructor must also maintain objectivity in order to identify students who do not meet standards. The instructor is responsible not only for flying training but also for providing a positive example of military professionalism for students to follow. Instructors must accurately document every facet of student training and be prepared to assist with any training problems that may arise.

## **2. Airdrome and Airspace Management:**

**2.1. Strategy and Objective.** Command strategy is to participate in the National Airspace System by using available air traffic control services to the maximum extent possible. The objective is to promote flying safety and compatibility with other airspace users. Regardless of the radar service available, or whether operating under instrument flight rules or visual flight rules, the see-and-avoid concept remains the primary means of collision avoidance when clear of clouds.

**2.2. Responsibility.** The air traffic control system and the individual controller have a direct responsibility to assist the pilot in accomplishing the mission.

**2.2.1. Requirements.** In managing airdrome and airspace requirements, OG/CCs will:

2.2.1.1. Ensure a sufficient number of local training areas exist to complete the training mission.

2.2.1.2. Ensure fuel efficient and noise sensitive routes are flown to and from training areas.

2.2.1.3. Ensure scheduling procedures employ the smooth flow concept to reduce peak work loads on air traffic control facilities, use runways and airspace efficiently, and minimize midair collision potential.

2.2.1.4. Make every effort to improve current operational capability and improve safety.

2.2.1.5. Develop airspace procedures according to AETCI 13-201.

2.2.1.6. Manage airdrome facilities according to AFI 13-213, *Airfield Management*.

**3. Life Support.** Commanders will ensure life support programs support the unit mission and maintain equipment according to Air Force directives and technical orders. Life support agencies provide systems necessary to sustain aircrews during normal operations, emergency escape, and survival situations. Programs will ensure standardized training for aircrews, passengers, and life support personnel. Refer to AETCI 11-301, *AETC Aircrew Life Support Program*, for specific guidance.

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***Attachments***

1. Glossary of Abbreviations
2. SOF Training Program
3. Index of Thermal Stress (ITS)
4. Chill Index
5. SOF Quick Reaction Checklist (QRC) Requirements
6. Hotel/Skyhook/X-Ray Conference Call Procedures
7. SOF Position Equipment Requirements
8. AETC SOF Telephone Numbers
9. Typical Duty Desk Equipment
10. Flight Commander Training Program
11. IC 97-1
12. IC 97-2
13. IC 97-3
- ★14. IC 98-1

**GLOSSARY OF ABBREVIATIONS**

AETC	Air Education and Training Command
ARTCC	Air Route Traffic Control Center
AU	Air University
CATCO	chief of air traffic control operations
CP	command post
DNIF	duty not involving flying
DSN	Defense Switching Network
FL/MC	Flight Lead/Mission Commander
HF	high frequency
IFE	in-flight emergency
ITS	index of thermal stress
OG/CC	operations group commander
NAF	Numbered Air Force
QRC	quick reaction checklist
RAPCON	radar approach control
RSU	runway supervisory unit
SFA	single frequency approach
SOF	supervisor of flying
SUP	squadron supervisor
SUPT	specialized undergraduate pilot training
TDY	temporary duty
TRACON	terminal radar approach control
UFT	undergraduate flying training
VHF	very high frequency



## **SOF TRAINING PROGRAM**

The OG/CC may designate a representative, such as the group Chief of Stan/Eval or Chief SOF to administer the SOF program. The training program will include the following minimum requirements:

A2.1. Review of applicable SOF directives and procedures.

A2.2. Review of other mission aircraft operations and capabilities.

A2.3. Tour base weather and fire department facilities, Radar Approach Control/Terminal Radar Control (RAPCON/TRACON), base operations, maintenance control, and command post (CP).

A2.4. The SOF trainee will handle a minimum of one simulated or actual aircraft emergency situation during each upgrade tour.

A2.5. Review of selected case studies of emergencies and lessons learned.

A2.6. A qualified SOF will supervise the SOF trainee for a minimum of four 3-hour SOF tours to include an opening tour and one night tour (UFT wings). Accomplish the night tour before performing SOF duties during scheduled night flying. All other AETC units will supervise SOF trainees for a minimum of two 4-hour tours, with one being an opening tour. The SOF trainee must demonstrate the proficiency and knowledge to supervise the flying operation safely and efficiently, to include:

A2.6.1. Operation of all communication equipment available to the SOF.

A2.6.2. Emergency response equipment available to the SOF.

A2.6.3 Coordination with key facilities such as base operations, CP, RAPCON/TRACON, control tower personnel, SUPs, fire department, security police and maintenance control.

A2.6.4. Procedures required during normal and emergency operations, such as status changes, weather recalls, changing weather conditions, opposite direction runway/barrier procedures, etc.

A2.7. Upon completion of the upgrade training program, the OG/CC will brief each SOF trainee as the final step in becoming a fully qualified SOF. The OG/CC will provide guidance and philosophy while outlining the SOF's responsibilities.

## INDEX OF THERMAL STRESS (ITS)

**A3.1. Instructions.** Enter with local dry bulb temperature and dew point temperature; at intersection read ITS value and zone (see figure A3.1). Applies only to lightweight flight clothing. The X denotes combinations above saturation temperature.

**A3.2. Procedures.** The weather shop determines the ITS zone, and SOFs work its applicability. Aircrew members have the responsibility to monitor their physical condition and not exceed their capability for safe mission accomplishment. These procedures are the recommended limits of exposure. Wings are encouraged to develop additional restrictions if mission requirements allow. Deviations to these procedures require OG/CC approval.

### A3.2.1. Caution Zone:

A3.2.1.1. Be alert for symptoms of heat stress.

A3.2.1.2. Drink plenty of liquids (noncaffeinated).

A3.2.1.3. Avoid exercise 4 hours prior to take off.

A3.2.1.4. Limit ground operations time to 90 minutes (time outside an air-conditioned environment).

### A3.2.2. Danger Zone. In addition to above procedures:

A3.2.2.1. Minimum recovery time between flights is 2 hours (landing time to next takeoff time).

A3.2.2.2. Limit ground operations to 45 minutes for fighter/trainer type aircraft (time outside air-conditioned environment). Airlift, tanker, and special operations aircraft may continue operations when the provisions of paragraph 1.2.5.7 are met.

A3.2.2.3. When possible, wait in a cool, shaded area if the aircraft is not ready to fly.

A3.2.2.4. Complete a maximum of two aircraft inspections (two exterior inspections on initial sorties and one exterior inspection on subsequent sorties for fighters and trainers).

A3.2.2.5. UFT solo students may accomplish only one exterior inspection per sortie.

Dry Bulb Temp		DEW POINT TEMPERATURE (°F)								
(°F)	ZONE	30	40	50	60	70	80	90	100	≥110
70		70	73	76	81	86	X	X	X	X
75		74	77	80	84	89	X	X	X	X
80	NORMAL	77	80	83	87	92	98	X	X	X
85		81	83	86	90	95	101	X	X	X
90		84	87	90	93	98	104	110	X	X
95		88	90	93	96	101	108	112	X	X
100		91	93	96	99	104	109	115	122	X
105	CAUTION	94	96	99	102	107	112	118	124	X
110		97	99	102	105	109	114	120	126	133
115		100	102	105	109	112	117	123	129	136
120	DANGER	104	105	108	111	115	120	125	131	138

**Figure A3.1. Index of Thermal Stress.**

## CHILL INDEX

### A4.1. General Instructions:

A4.1.1. Comply with AETCI 11-301, chapter 2, for winter clothing and procedures to ensure aircrew safety.

A4.1.2. OG/CCs should develop and implement local procedures to protect aircrews at home field and out bases. Deviations to these procedures require OG/CC approval.

### A4.2. Limits of Exposure: (See figure A4.1.)

#### A4.2.1. Caution Zone:

A4.2.1.1. Beware of stress due to cold temperatures.

A4.2.1.2. Limit ground operation to 45 minutes for fighter and trainer type aircraft (time outside heated environment).

#### A4.2.2. No Fly Zone:

A4.2.2.1. Exposed flesh can freeze in 1 minute.

A4.2.2.2. No flying allowed. **EXCEPTION:** Airlift, tanker, special operations aircraft when the provisions of paragraph 1.2.5.7 are met.

WINDSPEED		TEMPERATURE (°F)								
CALM	CALM	40	35	30	25	20	15	10	5	0
KNOTS	MPH	EQUIVALENT CHILL TEMPERATURE								
3 to 6	5	35	30	25	20	15	10	5	0	-5
7 to 10	10	30	20	15	10	5	0	-10	-15	-20
11 to 15	15	25	15	10	0	-5	-10	-20	-25	-30
16 to 19	20	20	10	5	0	-10	-15	-25	-30	-35
20 to 23	25	15	10	0	-5	-15	-20	-30	-35	-45
24 to 28	30	10	5	0	-10	-20	-25	-30	-40	-50
29 to 32	35	10	5	-5	-10	-20	-30	-35	-40	-50
33 to 36	40	10	0	-5	-15	-20	-30	-35	-45	-55
		CAUTION					NO FLY			

**Figure A4.1. Chill Index.**

**SOF QUICK REACTION CHECKLIST (QRC) REQUIREMENTS**

As a minimum, the SOF will have available a QRC that includes detailed instructions for the following:

- A5.1. Opening procedures.
- A5.2. Changeover procedures.
- A5.3. Closing procedures.
- A5.4. Flying status, as applicable.
- A5.5. Aircraft emergency.
- A5.6. Emergency/weather divert.
- A5.7. Weather recall.
- A5.8. Change of runway.
- A5.9. Runway closure.
- A5.10. Aircraft dispersal.
- A5.11. Controlled bailout, if applicable. (Precautionary landing - helicopter operations only.)
- A5.12. Aircraft accountability.
- A5.13. Bird condition.
- A5.14. Hot brakes.
- A5.15. Electricity failure/alternate SOF position contingency plan.
- A5.16. Aircraft crash.
- A5.17. Telephone numbers for local Federal Aviation Agency flight service, local terminal radar facility, and other local control towers.
- A5.18. Access to hotel/skyhook/x-ray conference call procedures/key phone numbers.
- A5.19. Other AETC SOF and CP telephone numbers.
- A5.20. Chase aircraft procedures for aircraft emergencies.

## **HOTEL/SKYHOOK/X-RAY CONFERENCE CALL PROCEDURES**

A6.1. The hotel/skyhook/x-ray conference call procedure was designed so the SOF, OG/CC, or CP representative can call the appropriate key telephone number for assistance during serious airborne emergencies. The OG/CC will place a copy of this attachment in the SOF QRC and should ensure the CP also maintains a current copy.

A6.2. The contractor or Air Logistics Center numbers provide a link to the most knowledgeable maintenance and engineering personnel in each aircraft. The SOF should not hesitate to call the emergency assistance number. Once the term "placing a hotel/skyhook/x-ray conference call" is expressed, the person receiving the call will put the SOF in contact with the appropriate experts.

A6.3. To initiate this call, provide the following information:

A6.3.1. Indicate this is a hotel/skyhook/x-ray conference call.

A6.3.2. Caller's name and telephone number.

A6.3.3. Base.

A6.3.4. Type aircraft.

A6.3.5. Nature of problem. In all cases, ensure contacted persons realize the problem involves an airborne emergency.

A6.4. Specific contacts are:

A6.4.1. T-37/T-38:

A6.4.1.1. Duty Hours. Call San Antonio-Air Logistics Center (SA-ALC), DSN 945-4316.

A6.4.1.2. Nonduty Hours. Call SA-ALC Command Post, DSN 945-6906.

A6.4.2. C-5:

A6.4.2.1. Duty Hours. Call SA-ALC, DSN 945-3725/5040/7089.

A6.4.2.2. Nonduty Hours. Call DSN 945-6906 or Base Ops, DSN 945-6802.

A6.4.3. C-130/C-141/HH-53/UH-1/UH-60:

A6.4.3.1. Duty Hours. Call Warner Robins-Air Logistics Center Command Post, DSN 497-2612/13.

A6.4.3.2. Nonduty Hours. Same as duty hours.

A6.4.4. C/KC-135 (all variations):

A6.4.4.1. Duty Hours. Call Boeing Wichita, DSN 743-5687, for skyhook conference call, or McConnell AFB operator, DSN 743-1110. Ask for Boeing Wichita.

A6.4.4.2. Nonduty Hours. Call Boeing operator, commercial (800) 721-0422.

A6.4.5. F-15/C-17:

A6.4.5.1. Duty Hours. Call St. Louis operator, DSN 693-1110. Ask for McDonnell Douglas x-ray operator, commercial (314) 232-9999.

A6.4.5.2. Nonduty Hours. Same as duty hours.

A6.4.6. F-16:

A6.4.6.1. Duty Hours. Call Lockheed for hotel conference call at DSN 940-1284, or commercial (817) 763-2274.

A6.4.6.2. Nonduty Hours. Same as duty hours.

A6.4.7. C-21:

A6.4.7.1. Duty Hours. Call HQ AMC/DOVG, DSN 576-2510, Serv-Air Inc, Greenville, Texas, commercial (903) 408-4393.

A6.4.7.2. Nonduty Hours. Contact TACC DSN 576-5851 for skyhook conference and ask for C-21 rep, or call beeper number:  
1-800-air-mobl (247-6625).

A6.4.8. T-1 and C-12:

A6.4.8.1. Duty Hours. Call Beechcraft Corporation, Wichita, Kansas. Ask for the head of engineering: commercial (316) 676-7937.

A6.4.8.2. Nonduty Hours. Call Beechcraft Corporation Security, commercial (316) 676-5300/5301. Ask for Beechcraft engineers.

A6.4.9. T-43:

A6.4.9.1. Duty Hours. Call Boeing for skyhook conference call at DSN 743-5687, or commercial (800) 721-0422; or Boeing Aircraft Company, Randolph AFB TX, DSN 487-7881, or commercial (210) 652-7881.

A6.4.9.2. Nonduty Hours. Same as duty hours.

## **SOF POSITION EQUIPMENT REQUIREMENTS**

For SOFs located in the tower, equipment will consist of the following, as a minimum:

A7.1. Two dedicated radios. At least one should be multichannel and will be recorded. The SOF will have the capability to monitor ground, tower, and guard frequencies. The OG/CC will designate alternate locations and facilities for use during extenuating circumstances. If applicable, equip SOF vehicles with communications equipment to allow contact with all agencies.

A7.2. Telephone hotlines to the wing/CC, OG/CC, squadron duty desks, home field RSUs (if applicable), wing/unit CP, base operations, Air Route Traffic Control Center (ARTCC) or RAPCON/TRACON as applicable, and the base weather station.

A7.3. (UFT only) Telephone hotline to auxiliary field RSU as specified in AETCI 13-201.

A7.4. At least one class A telephone line.

A7.5. A handheld radio (brick).

A7.6. Weather radar monitor.

A7.7. Locally developed QRCs. Reference attachment 5.

A7.8. Publications and aircraft manuals for each primary mission aircraft.

A7.9. An information/read file.

A7.10. For other SOF positions, the OG/CC will ensure the above equipment is readily accessible.

**AETC SOF TELEPHONE NUMBERS**

<b>BASE</b>	<b>DSN</b>
ALTUS	866-6313/6314
CASTLE	347-2838/2900
COLUMBUS	742-7639
KEESLER	597-0663
KINGSLEY	830-6686
KIRTLAND	246-9482 (Flt Ops)
LAUGHLIN	732-5185
LUKE	853-5454
MAXWELL	493-3000
RANDOLPH (East Rwy)	487-5739
(West Rwy)	487-2395
REESE	838-6627
SHEPPARD	736-1802
TUCSON	853-4109
TYNDALL	523-2430
USAFA	259-3654
VANCE	940-7688



## **TYPICAL DUTY DESK EQUIPMENT**

The OG/CC will determine squadron duty desk equipment requirements based on this list.

A9.1. Radios as appropriate (UHF, VHF, HF) to allow squadron supervisors the capability to monitor emergency aircrew communications with the SOF, on the SOF or emergency discrete frequency, as appropriate, while also providing duty desk personnel a frequency for resolving routine aircrew difficulties, such as aircraft changes or flight plan problems.

A9.2. Telephone hotlines to the SOF, home field RSUs (UFT only), base operations, ARTCC or RAPCON/TRACON (as applicable at the alternate SOF location), base weather station, and maintenance control.

A9.3. Telephone communications to the auxiliary RSU (UFT only).

A9.4. At least one class A telephone line.

A9.5. Weather radar monitor (not required if all aircrews receive weather briefing at the base weather office).

A9.6. Weather displays.

A9.7. Locally developed QRCs designed to support SOF actions.

A9.8. Publications and aircraft manuals for mission aircraft.

A9.9. Access to the secondary crash net.

A9.10. Means of displaying airfield and pattern status, barrier position status (that is, raised or lowered), takeoff and landing data (exception: tanker, airlift, and special operations units), ITS/wind chill, and any other applicable information for mission accomplishment.

A9.11. Listing of telephone numbers to the ARTCC and RAPCON (as applicable), local flight service station, and other local control towers.

A9.12. Global Deployment Scheduling System/Command and Control Information Processing System.

## FLIGHT COMMANDER TRAINING PROGRAM

**Suggested Topics.** The following topics are suggested items for discussion in a flight commander training program. Wings should design programs appropriate for specific flight commander positions.

**A10.1. Command and Control.** The OG/CC will outline the overarching principles of the flight commander's responsibilities as a commander.

- Chain of Command for Policy Issues
- Skip Echelon Staffing

**A10.2. Safety.** The chief of wing safety will explain commanders' roles in mishap prevention, including a mishap history and the supervisory view of causes and prevention.

- Mishap History
  - Types and Causes
  - Operator Factors
- Aircrew Discipline
- Limited Use Reports

**A10.3. Student Management.** The OG/CC will outline the flight commander's responsibilities regarding all phases of student management.

- Syllabus Management
  - Scheduling
  - Student Airsickness, Manifestation of Apprehension (UFT only)
  - Self-Initiated Elimination
  - End of Phase Assessment
  - End-of-Course Critiques
- Commander's Awareness Program (UFT only)
  - Philosophy and Standardization
  - Placement and Removal
  - Counseling

- Commander's Quality Review Process (UFT only)
  - Progress and Elimination Check Philosophy
  - Commander's Review
- Merit Assignment Selection System (UFT only)
  - Flight Commander Ranking
  - Calculations and Methodology

**A10.4. Runway Supervisory Unit (RSU) Program and Responsibilities (UFT only).** The OG/CC will discuss the role of the RSU in daily training and supervision.

- Purpose of RSU Program
- Selection of Controllers and Observers
- Philosophy on Traffic Pattern Operations

**A10.5. Supervisor of Flying (SOF) Program.** The OG/CC will discuss the responsibilities of the SOF.

- OG/CC designated representative
- Primarily responsible for safe conduct of the daily flying operation

**A10.6. International Military Student Management Officer (IMSO) (UFT only).** The IMSO will discuss the role of the flight commander in relation to international student training, to include the lines of communication between the students, their country, and AETC.

- International Student Entries and Their Cultures
- Air Force Security Assistance Training Program
- Special Activities for International Students

**A10.7. Group Standardization.** The OG/CCV (UFT) or OG/CC-designated person will discuss the standardization functions.

- Flight Evaluations
  - AETC Standardization/Evaluation Program

- Periodic Flight Evaluation Cycles
- Trend Analysis
- Inspections
  - Local and 19 AF/DOV Inspection Cycles
  - Self-Inspection Program
  - Quality Air Force Assessment

**A10.8. Officer Development.** A flying squadron commander will discuss the flight commander's role in the military leadership of his or her subordinates.

- Flight Commander Responsibilities
  - Challenges of the Overarching Principles
  - Officer Performance Report and Promotion Recommendation Form Procedures
  - Air Force and AETC Guidance for Dress and Personal Appearance of Air Force Personnel
  - The Air Force Weight Program
  - Alcohol in the Squadron
- Officer Professional Development
  - Professional Conduct and Relationships
  - Officer/Enlisted Relationship
  - Instructor/Student Relationship
  - Career Counseling
- Chain of Command
  - Roles of Squadron Commander and Operations Officer
  - Relationship to Group, Wing, and Higher Headquarters
  - Lines of Communication Up and Down the Chain
  - Flight Commander Role in Punitive and Administrative Actions

**A10.9. Aircraft/Maintenance Utilization.** The OG/CC and the maintenance authority will discuss aircraft utilization.

- Operations/Maintenance Team
- Wing Scheduling Plan
  - Utilization (UTE) Rates
  - Average Sortie Duration (ASD)
- Scheduling Process

**A10.10. Support Issues.** The support group commander will explain the relationship of the flight commander with respect to other base agencies.

- Functions of Support Group
  - Civil Engineering
  - Communications
  - Facilities Maintenance
  - Social Actions
  - Morale, Welfare, and Recreation (MWR) and Services
  - Civilian and Military Personnel
- Security Police
  - Relationship with Civil Authorities
  - Policies on Driving While Intoxicated and Driving Under the Influence
- Logistics Group
  - Supply
  - Individual Equipment
  - Office Supplies and Equipment
  - Transportation

**A10.11. Medical Issues.** A flight surgeon and aerospace physiology officer will discuss the role of medical and physiological functions of the wing.

- Scheduling Physicals and Physiological Training
- DNIF Policies

**A10.12. Legal Aspects of Command.** A representative from the legal office will outline commander responsibilities and options according to publications applicable to military and civilian personnel.

- Uniform Code of Military Justice
- Commander Options
  - Administrative
    - Letter of Reprimand
    - Counseling
  - Punitive
    - Article 15
    - Court Martial
  - Drug and Alcohol Abuse
  - Policy and Objectives
  - Testing Program
- Equal Opportunity and Treatment
- Loss or Damage of Government Property/Report of Survey
- Authorized Fund Raising Activities

**A10.13. Wing Commander Topics and Certificate Presentation.**

**27 FEBRUARY 1997**

**IC 97-1 TO AETCI 11-405, FLYING TRAINING SUPERVISION, 11 AUGUST 1995**

**★SUMMARY OF REVISIONS**

This incorporates accident safety investigation board recommendations and SOF requirement clarifications. See attachment IC 97-1 for the complete IC.

★1.2.1. **Qualifications.** SOFs are nominated by the squadron commander and certified by the OG/CC. A SOF will be a flight commander or equivalent or higher (as determined by OG/CC in wing supplement) and will be current in one of the aircraft assigned to the base.

★A2.6.4. Procedures required during normal and emergency operations, such as status changes, weather recalls, changing weather conditions, opposite direction runway/barrier procedures, etc.

★A9.10. Means of displaying airfield and pattern status, barrier position status (that is, raised or lowered), takeoff and landing data (exception: tanker, airlift, and special operations units), ITS/wind chill, and any other applicable information for mission accomplishment.

7 JULY 1997

**IC 97-2 TO AETCI 11-405, FLYING TRAINING SUPERVISION, 27 FEB 1997****★SUMMARY OF REVISIONS**

This interim change (IC) is a clarification of who should be qualified to perform duties as squadron supervisor (SUP). The intent of AETC guidance is to establish an experienced cadre of responsible supervisors to provide coverage for the squadron commander, operations officer, or assistant operations officers when they are temporarily unavailable. Although senior squadron supervisors should provide supervisory coverage whenever possible, flight commanders may be required to fill the SUP position on a case-by-case basis. A ★ indicates a change from the previous edition.

**★1.4. Squadron Supervisor (SUP).** The SUP is the focal point for decisions affecting all squadron flying operations, and he or she will ensure flying operations comply with directives. The squadron commander, operations officer, or any assistant operations officers will be the SUP. On a case-by-case basis and with the operations group commander's approval, flight commanders may perform SUP duties. The intent of this deviation is to provide coverage for the squadron commander, operations officer, or assistant operation officers when they are temporarily unavailable. The SUP is the squadron's primary point of contact for the supervisor of flying (SOF). In emergency situations, the SUP provides guidance and assistance to the SOF as required. Under normal circumstances, SUP duties should not be combined with those of the SOF. However, the Fairchild AFB UH-1 and T-43, C-12, and C-21 SUPs may combine SUP duties with those of the SOF due to the small size of their units. (If the duties are combined, the wing supplement will specify the primary duty location.) At all other units when the number of aircraft involved is very small and of short duration, the operations group commander may, by exception, authorize combining SUP duties with those of the SOF.



**8 SEPTEMBER 1997**

**IC 97-3 TO AETCI 11-405, FLYING TRAINING SUPERVISION, 7 JULY 1997**

**★SUMMARY OF REVISIONS**

This interim change (IC) aligns index of thermal stress (ITS) caution and danger procedures in attachment 3 with AETCI 48-101, *Prevention of Heat Stress Disorders*. A ★ indicates a change from the previous edition.

(For changes, see attachment on the next page.)

## INDEX OF THERMAL STRESS (ITS)

**A3.1. Instructions.** Enter with local dry bulb temperature and dew point temperature; at intersection read ITS value and zone (see figure A3.1). Applies only to lightweight flight clothing. The X denotes combinations above saturation temperature.

**A3.2. Procedures.** The weather shop determines the ITS zone, and SOFs work its applicability. Aircrew members have the responsibility to monitor their physical condition and not exceed their capability for safe mission accomplishment. These procedures are the recommended limits of exposure. Wings are encouraged to develop additional restrictions if mission requirements allow. Deviations to these procedures require OG/CC approval.

**A3.2.1. Caution Zone:**

A3.2.1.1. Be alert for symptoms of heat stress.

A3.2.1.2. Drink plenty of liquids (noncaffeinated).

A3.2.1.3. Avoid exercise 4 hours prior to take off.

★A3.2.1.4. Limit ground operations time to 90 minutes (time outside an air-conditioned environment).

**A3.2.2. Danger Zone.** In addition to above procedures:

★A3.2.2.1. Minimum recovery time between flights is 2 hours (landing time to next takeoff time).

★A3.2.2.2. Limit ground operations to 45 minutes for fighter/trainer type aircraft (time outside air-conditioned environment). Airlift, tanker, and special operations aircraft may continue operations when the provisions of paragraph 1.2.5.7 are met.

★A3.2.2.3. When possible, wait in a cool, shaded area if the aircraft is not ready to fly.

★A3.2.2.4. Complete a maximum of two aircraft inspections (two exterior inspections on initial sorties and one exterior inspection on subsequent sorties for fighters and trainers).

★A3.2.2.5. UFT solo students may accomplish only one exterior inspection per sortie.

Dry Bulb Temp (°F)	ZONE	DEW POINT TEMPERATURE (°F)								
		30	40	50	60	70	80	90	100	≥110
70		70	73	76	81	86	X	X	X	X
75		74	77	80	84	89	X	X	X	X
80	<b>NORMAL</b>	77	80	83	87	92	98	X	X	X
85		81	83	86	90	95	101	X	X	X
90		84	87	90	93	98	104	110	X	X
95		88	90	93	96	101	108	112	X	X
100		91	93	96	99	104	109	115	122	X
105	<b>CAUTION</b>	94	96	99	102	107	112	118	124	X
110		97	99	102	105	109	114	120	126	133
115		100	102	105	109	112	117	123	129	136
120	<b>DANGER</b>	104	105	108	111	115	120	125	131	138

Figure A3.1. Index of Thermal Stress.

18 MARCH 1998

IC 98-1 TO AETCI 11-405, FLYING TRAINING SUPERVISION, 8 SEPTEMBER 1997

**★SUMMARY OF REVISIONS**

This revision incorporates IC 98-1, which adds flight commander to the listing of who is qualified to perform duties as squadron supervisor (SUP). See attachment 14 for IC 98-1. A ★ indicates a change from the previous edition.

**★1.4. Squadron Supervisor (SUP).** The SUP is the focal point for decisions affecting all squadron flying operations, and he or she will ensure flying operations comply with directives. The squadron commander, operations officer, any assistant operations officer, or any flight commander will be the SUP. Before a flight commander assumes SUP duties, the squadron commander must nominate the individual to the operations group commander in writing. The operations group commander will establish a training program for flight commanders selected for SUP duties. Once training is complete, the operations group commander will certify flight commanders, in writing, prior to them performing SUP duties. On a case-by-case basis and with the operations group commander's approval, flight commanders who have not been trained or certified as SUP may perform SUP duties. The intent of this deviation is to provide coverage for the squadron commander, operations officer, assistant operations officer, or certified flight commander when they are temporarily unavailable. The SUP is the squadron's primary point of contact for the supervisor of flying (SOF). In emergency situations, the SUP provides guidance and assistance to the SOF as required. Under normal circumstances, SUP duties should not be combined with those of the SOF. However, the Fairchild AFB UH-1N and T-43, C-12, and C-21 SUPs may combine SUP duties with those of the SOF due to the small size of their units. (If the duties are combined, the wing supplement will specify the primary duty location). At all other units when the number of aircraft involved is very small and of short duration, the operations group commander may, by exception, authorize combining SUP duties with those of the SOF.